

Space Nutrition



Volume 3

Back to the Future

Issue #6

Space Meds

Medications are a necessary part of space flight. During space flight, medications may be given to treat conditions such as space motion sickness, headaches, sleeplessness, and nasal congestion. At the Johnson Space Center, the Pharmacotherapeutics Laboratory (PL) is where scientists study pharmacology, the science of the use and effects of medicines. The goal of the PL is to provide safe and effective medicines to support the health of astronauts. This laboratory performs research to study how the body absorbs and eliminates medications, and how space flight affects this process. Scientists and pharmacists in the PL also conduct research to increase the shelf life of medications that are flown on space missions.



Honoring the Past

As we take these first steps toward the future, we must also remember those who have fallen in pursuit of this dream. We honor and remember the STS-107 crew, those seven brave, outstanding individuals who, just one year ago, embarked on a mission of science that enthralled and excited all of us. The loss of the Columbia crew, like the loss of the Challenger crew before them, weighs on our hearts, yet drives us to continue forward, and to ensure that the dream stays alive.



Curiosity Corner

What do you think the space vehicle of the future and the lunar base will look like?

Send your drawings and ideas for either to:

Space Nutrition Newsletter
Nutritional Biochemistry Laboratory
Mail Code SK3
NASA - Johnson Space Center
Houston, TX 77058



Where were you on the afternoon of January 14, 2004? That was when President Bush announced the future of NASA, and the future of space exploration for the United States. We will start making plans to develop the next space vehicle - one that will take us back to the moon to establish a base where people will live and work. Learning from the challenges of doing this, we will then turn our sights to sending humans off to the next destination - Mars. What an exciting time this is to be alive.



If you are 10-12 years old now, our first trip back to the moon may come while you are in college. Who knows - you could someday come to work at NASA and help do research on these missions, or even pave the way for the missions to Mars. This is going to be a tough job, with many different challenges. What will the vehicle use for fuel? What will the crew use for fuel (food)? How many crew members? What will be the first words radioed from Mars? It was only one hundred years ago that the Wright brothers took that first flight in North Carolina. Where will we be in another hundred years? Only time will tell....

Did you know?

- The Spirit rover has been rolling around Mars, looking at rocks, and conducting scientific experiments to better understand the Martian surface and landscape. This has to be the most amazing remote-controlled vehicle ever!
- A second rover, Opportunity, landed on Mars in late January on the other side of the planet from Spirit. Almost seems a shame that the two vehicles will be that far away from home, and they won't be able to see each other!
- The Expedition 8 crew continues to work and live on the International Space Station (ISS). They arrived on ISS way back on October 18, 2003, and are not scheduled to land until April of 2004. Imagine spending 6 months on a trip away from home!
- In addition to conducting experiments and keeping the ISS in great shape, the crew does get to have some fun. With the Super Bowl being held in Houston, TX this year, there is a good chance that the ISS crew will send down greetings to the crowd at the game and to those watching the game on TV!



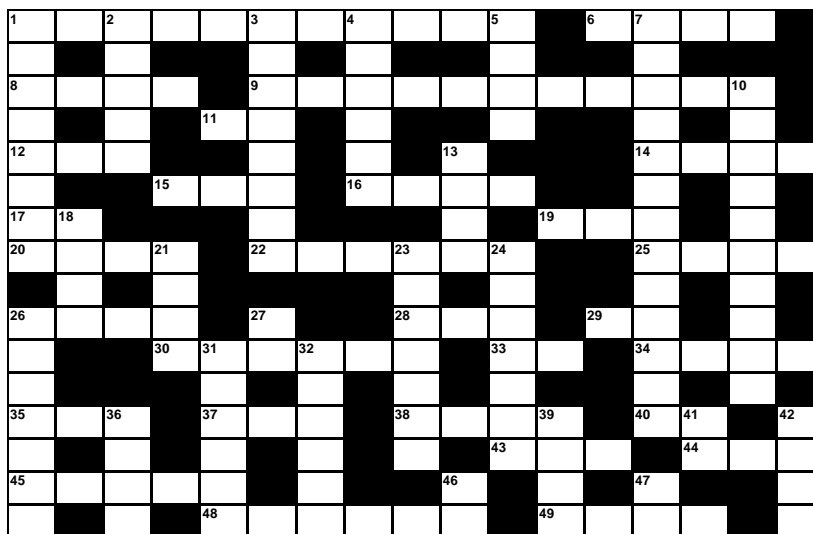
Word of the Month

Thermostabilized

Can you guess what this word means? Look for the meaning of the "Word of the Month" in the next issue of Space Nutrition.



FUN CORNER



Across

- 1 Discovery of new lands
- 6 To go up
- 8 Not shiny
- 9 Sun and its planets
- 11 You and I
- 12 A work of ____
- 14 Running contest
- 15 Automobile
- 16 Group with a common purpose
- 17 Either ____, neither nor
- 19 Extravehicular activity
- 20 Wander
- 22 Good nutrition is essential for ____
- 25 Color or shade
- 26 Indistinct mark
- 28 Short for fabulous
- 29 ____ and fro
- 30 Ghost
- 33 ____ I only had a brain
- 34 Opposite of far
- 35 Parcel of land
- 37 Advanced Lunar Vehicle
- 38 There is nothing to ____ but ____ itself
- 40 Expedition 7 astronaut
- 43 Summit
- 44 Safety ____
- 45 Goliath
- 48 Skeletal ____
- 49 Addition and subtraction

Down

- 1 Shuttle name
- 2 Flies Shuttle
- 3 Systematic investigation
- 4 Skill
- 5 U.S. space agency
- 7 ____ Space Station
- 10 Operated by machinery
- 13 To rest patiently
- 18 To move on wheels
- 21 Red planet
- 23 Launch
- 24 Home
- 26 The study of life
- 27 Hello
- 31 Botany - the study of ____
- 32 Spirit, one of the Mars ____
- 36 Rip
- 39 20 across
- 41 Opposite of down
- 42 To break suddenly
- 46 Afternoon
- 47 Third-person pronoun

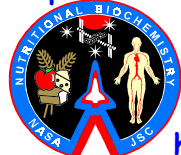
Check out these cool NASA links for more fun space science facts!

<http://www.nasa.gov/audience/forkids/index.html>

<http://www.fda.gov/oc/opacom/kids/default.htm>

<http://www.spaceflight.nasa.gov>

<http://www.nasa.gov>



Check out the Nutritional Biochemistry Laboratory's website for more information about nutrition and space.

<http://haco.jsc.nasa.gov/biomedical/nutrition/>

